

4. (Twice amended) [An adjustable back fence] A system for work piece milling on woodworking tools having a cutting portion, the woodworking tools chosen from the group consisting of a wood shaper, a router table and a table saw, the [adjustable back fence] woodworking tool allowing work piece movement on the woodworking tools through the cutting portion in a first direction, the system comprising:

a. an indexing system comprising:

1) an indexing channel system including at least one channel having an elongated slot, the channel having a channel stop securable at one end of the elongated slot, the channel being [adjustably] attachable to the woodworking tool so that the channel is [movable on and] secured to the woodworking tool [in a desired configuration with respect to] approximately perpendicular to the direction of work piece movement through the cutting portion on the woodworking tool;

2) at least one indexing spacer of predetermined length that fits within and is retained in the elongated slot of the channel; and

b. a horizontal member attachable to the indexing system through at least one adjustable connection, the connection having a connection member extending into the elongated slot of the channel, the connection member interacting with the elongated slot to secure the horizontal member to the channel in a spaced relationship from the channel stop, the spaced relationship determined by the length of the indexing spacer;

whereby, once the indexing channel system is secured to the woodworking [machine] tool and the channel stop securely located at the one end of the elongated slot, the horizontal member

is moved toward the cutting portion until the connection member contacts the indexing spacer so that the horizontal member is positioned a distance from the cutting portion [a desired part] of the woodworking [machine such as a cutting portion of such woodworking machine] tool in a precisely determined distance from the [desired part] cutting portion of the woodworking [machine] tool, the distance determined by the length of the indexing spacer.

11. (Twice amended) The [adjustable back fence] system of claim 4 further comprising a bracket interlocking the [adjustable back fence] system to a fence system.

13. (Twice amended) The [adjustable back fence] system of claim 4 wherein: the channel of the indexing channel system is an extruded piece; the elongated slot is formed in cross-section in an upright or inverted T shape; and the connection includes anchoring means interacting with the elongated slot for securing the horizontal member to the indexing channel system.

14. (Twice amended) The [adjustable back fence] system of claim 4 wherein the indexing spacer of predeterminable length is chosen from a group consisting of indexing spacers having [may either have] a preset length or an adjustable length.

16. (Twice amended) The [adjustable back fence] system of claim 14 wherein the indexing spacer of predeterminable length comprises a body having a threaded hole and an opposed end and a hex bolt having a head, the hex bolt having threads that are threaded into the threaded hole

of the body whereby the distance from the opposed end of the body and the head of the hex bolt, and consequently the length of the spacer, is determined by rotating the hex bolt into or out of the threaded hole of the body.

17. (Amended) The [adjustable back fence] system of claim 14 wherein the indexing spacer of predeterminable length comprises:

at least two finger gauges aligned side by side, each finger gauge having a hole extending entirely through the finger gauge transverse to the side by side alignment;  
a connecting bolt extending through the holes in the finger gauges, the connecting bolt holding the gauges in side by side alignment.

18. (Amended) The [adjustable back fence] system of claim 14 wherein the indexing spacer of predeterminable length comprises:

at least three relatively thick finger gauges aligned side by side, each relatively thick finger gauge having a hole extending entirely through the finger gauge transverse to the side by side alignment;

at least three relatively thin finger gauges aligned side by side, each relatively thin finger gauge having a hole extending entirely through the finger gauge transverse to the side by side alignment;

a first connecting bolt extending through the holes in the finger gauges, the first connecting bolt holding the gauges in side by side alignment.

19. (Amended) The [adjustable back fence] system of claim 18 wherein each of the at least three relatively thin finger gauges are each one third the thickness of one of the relatively thick finger gauges.

20. (Amended) The [adjustable back fence] system of claim 18 further comprising:  
a second connecting bolt;  
a pair of plates located on opposed sides of the finger gauges, the pair of plates attached to and pivoting about the first connecting bolt, the pair of plates having holes at one end to allow the second connecting bolt to pass therethrough; and  
a block located between the pair of plates at one end of the finger gauges, the block having a hole extending entirely through the block, the hole in the block holding the second connecting bolt whereby the block pivots about the second connecting bolt.

21. (Amended) [An adjustable back fence] A system for work piece milling on woodworking tools having a cutting portion, the woodworking tools chosen from the group consisting of a wood shaper, a router table and a table saw, the [adjustable back fence] woodworking tool allowing work piece movement on the woodworking tool through the cutting portion in a first direction, the system comprising:

a. an indexing system comprising:

1) an indexing channel system including at least one channel having an elongated slot, the channel having a channel stop securable at one end of the elongated slot, the channel being [adjustably] attachable to the woodworking tool so that the channel is [movable on and] secured to the woodworking tool [in a desired configuration with respect to] approximately perpendicular to the direction of work piece movement through the cutting portion on the woodworking tool wherein: and

the channel of the indexing channel system is an extruded piece;

the elongated slot is formed in cross-section in an upright or inverted T shape;

[and

the connection includes anchoring means interacting with the elongated slot for securing the horizontal member to the indexing channel system;]

2) at least one indexing spacer of predetermined length that fits within and is retained in the elongated slot of the channel wherein the indexing spacer of predetermined length may either have a preset length or an adjustable length; and

b. a horizontal member attachable to the indexing system through at least one adjustable connection, the connection having a connection member extending into the elongated slot of the channel, the connection member interacting with the elongated slot to secure the horizontal member to the channel in a spaced relationship from the channel stop, the spaced relationship determined by the length of the indexing spacer;

whereby, once the indexing channel system is secured to the woodworking [machine] tool and the channel stop securely located at the one end of the elongated slot, the horizontal member

is moved toward the cutting portion until the connection member contacts the indexing spacer so  
that the horizontal member is positioned a distance from the cutting portion [a desired part] of  
the woodworking [machine such as a cutting portion of such woodworking machine] tool in a  
precisely determined distance from the [desired part] cutting portion of the woodworking  
[machine] tool, the distance determined by the length of the indexing spacer.

22. (Amended) The [adjustable back fence] system of claim 21 further comprising a bracket interlocking the [adjustable back fence] system to a fence system.

23. (Amended) The [adjustable back fence] system of claim 21 wherein the indexing spacer of predeterminable length comprises a body having a threaded hole and an opposed end and a hex bolt having a head, the hex bolt having threads that are threaded into the threaded hole of the body whereby the distance from the opposed end of the body and the head of the hex bolt, and consequently the length of the indexing spacer, is determined by rotating the hex bolt into or out of the threaded hole of the body.

24. (Amended) The [adjustable back fence] system of claim 21 wherein the indexing spacer of predeterminable length comprises:

at least two finger gauges aligned side by side, each finger gauge having a hole extending entirely through the finger gauge transverse to the side by side alignment;

a connecting bolt extending through the holes in the finger gauges, the connecting bolt holding the gauges in side by side alignment.

25. (Amended) The [adjustable back fence] system of claim 21 wherein the indexing spacer of predeterminable length comprises:

at least three relatively thick finger gauges aligned side by side, each relatively thick finger gauge having a hole extending entirely through the finger gauge transverse to the side by side alignment;

at least three relatively thin finger gauges aligned side by side, each relatively thin finger gauge having a hole extending entirely through the finger gauge transverse to the side by side alignment;

a first connecting bolt extending through the holes in the finger gauges, the first connecting bolt holding the gauges in side by side alignment.

26. (Amended) The [adjustable back fence] system of claim 25 wherein each of the at least three relatively thin finger gauges are each one third the thickness of one of the relatively thick finger gauges.

27. (Amended) The [adjustable back fence] system of claim 25 wherein the indexing spacer further [comprising] comprises:

a second connecting bolt;